

Claim Amendments and Listing of Claims:

Please amend claims 25-29 and add new claims 30-34 so that the claims read as follows:

1. (Previously presented) In a bipolar air ionizer apparatus comprising an air inlet, a high voltage source, a first electrode electrically connected to the high voltage source and configured to generate positive polarity ions, a second electrode electrically connected to the high voltage source and configured to generate negative polarity ions, an air outlet and an air mover for causing air to flow into the bipolar air ionizer through the air inlet, around the electrodes and out of the bipolar air ionizer through the air outlet, wherein the improvement comprises:

a foraminous filter comprising an electrically conductive material, the filter being electrically coupled to at least one of a voltage source and ground, the filter being positioned over at least one of the air inlet, the air outlet and the electrodes, such that air flowing into the air inlet, air flowing out of the air outlet or air flowing past the electrodes flows through the filter.

2. (Previously presented) The bipolar air ionizer as recited in claim 1, wherein the filter is positioned over the air inlet and is electrically coupled to ground for removing positive and negative ions from the air flowing into the bipolar air ionizer.

3. (Previously presented) The bipolar air ionizer as recited in claim 2, wherein the filter comprises a metal screen.

4. (Previously presented) The bipolar air ionizer as recited in claim 1, wherein the filter is positioned over the air inlet and is electrically coupled to a voltage source for preventing existing voltage offsets in the air of the surrounding environment from flowing into the bipolar air ionizer.

5. (Previously presented) The bipolar air ionizer as recited in claim 4, wherein the voltage source which is electrically coupled to the filter comprises one of a direct current voltage and a control loop voltage.

6. (Previously presented) The bipolar air ionizer as recited in claim 4, wherein the filter is comprised of a metal screen.

7. (Previously presented) The bipolar air ionizer as recited in claim 1, wherein the filter is positioned over the air outlet and is electrically coupled to ground for removing unwanted positive and negative ions and ionization noise from ionized air flowing out of the bipolar air ionizer through the air outlet.

8. (Previously presented) The bipolar air ionizer as recited in claim 7, wherein the filter comprises a metal screen.

9. (Previously presented) The bipolar air ionizer apparatus as recited in claim 1, wherein the high voltage source comprises a high voltage direct current power supply and wherein the filter is positioned over the air outlet and is coupled to a direct current voltage source for reducing noise ions from the ionized air flowing out of the bipolar air ionizer through the air outlet and for controlling the direct current balance of the ionized air flowing out of the bipolar air ionizer.

10. (Previously presented) The bipolar air ionizer as recited in claim 9, wherein the filter comprises a metal screen.

11. (Previously presented) The bipolar air ionizer as recited in claim 9, further comprising a sensor at the air outlet for sensing ion content of the outlet air, the sensor providing a feedback voltage for controlling the output of the high voltage direct current power supply.

12. (Previously presented) The bipolar air ionizer as recited in claim 9, further comprising a sensor at the air outlet for sensing ion content of the outlet air, the sensor providing a feedback voltage for controlling the direct current voltage source coupled to the filter.

13. (Previously presented) The bipolar air ionizer as recited in claim 25, wherein the filter is positioned over the air outlet and is coupled to a direct current voltage source

for reducing noise ions from the ionized air flowing out of the bipolar air ionizer and for controlling the direct current balance of the ionized air flowing out of the bipolar air ionizer.

14. (Previously presented) The bipolar air ionizer as recited in claim 13, wherein the filter comprises a metal screen.

15. (Previously presented) A method of removing ions from air flowing into a bipolar air ionizer having an air inlet, a high voltage source, a first electrode electrically connected to the high voltage source and configured to generate positive polarity ions, a second electrode electrically connected to the high voltage source and configured to generate negative polarity ions, an air outlet and an air mover for causing air to flow into the bipolar air ionizer through the air inlet, around the electrodes and out of the bipolar air ionizer through the air outlet, the method comprising the steps of:

placing a foraminous filter comprising an electrically conductive material over the air inlet; and

coupling the filter to one of a voltage source and ground.

16. (original) The method as recited in claim 15, wherein the filter comprises a metal screen.

17. (Previously presented) A method for removing unwanted ions and ionization noise from ionized air flowing out of a bipolar air ionizer, the bipolar air ionizer having an air inlet, a high voltage source, a first electrode electrically connected to the high voltage source and configured to generate positive polarity ions, a second electrode electrically connected to the high voltage source and configured to generate negative polarity ions, an air outlet and an air mover for causing air to flow into the bipolar air ionizer through the air inlet, around the electrodes and out of the bipolar air ionizer through the air outlet, the method comprising the steps of:

placing a foraminous filter comprising an electrically conductive material over the air outlet; and

coupling the filter to one of a voltage source and ground.

18. (Previously presented) The method as recited in claim 17 wherein the filter comprises a metal screen.

19. (Previously presented) A method of removing ions from air flowing into a bipolar air ionizer having an air inlet, a high voltage source, a first electrode electrically connected to the high voltage source and configured to generate positive polarity ions, a second electrode electrically connected to the high voltage source and configured to generate negative polarity ions, an air outlet and an air mover for causing air to flow into the bipolar air ionizer through the air inlet, around the electrodes and out of the bipolar air ionizer through the air outlet, the method comprising the steps of:

placing a foraminous filter comprising an electrically conductive material around the electrodes; and

coupling the filter to one of a voltage source and ground.

20. (original) The method as recited in claim 19, wherein the filter comprises a metal screen.

21. (Previously presented) In a bipolar air ionizer apparatus comprising an air inlet, a high voltage source, a first electrode electrically connected to the high voltage source and configured to generate positive polarity ions, a second electrode electrically connected to the high voltage source and configured to generate negative polarity ions, an air outlet and an air mover for causing air to flow into the bipolar air ionizer through the air inlet, around the electrodes and out of the bipolar air ionizer through the air outlet, wherein the improvement comprises:

a foraminous filter comprising an electrically conductive material, the filter being electrically coupled to one of a voltage source and ground, the filter being positioned on an interior surface of the bipolar air ionizer apparatus, such that at least a portion of the air flowing past the electrodes engages the filter.

22. (Previously presented) The bipolar air ionizer apparatus as recited in claim 21 wherein the filter comprises a metal screen.

23. (Previously presented) A method of removing unwanted ions from air flowing out of a bipolar air ionizer, the bipolar air ionizer having an air inlet, a high voltage source, a first electrode electrically connected to the high voltage source and configured to generate positive polarity ions, a second electrode electrically connected to the high voltage source and configured to generate negative polarity ions, an air outlet and an air mover for causing air to flow into the bipolar air ionizer through the air inlet, around the electrodes and out of the bipolar air ionizer through the air outlet, the method comprising the steps of:

placing a foraminous filter comprising an electrically conductive material over an interior surface of the bipolar air ionizer apparatus proximate to the electrodes; and
coupling the filter to one of a voltage source and ground.

24. (original) The method as recited in claim 23 wherein the filter comprises a metal screen.

25. (Currently amended) In a bipolar air ionizer apparatus comprising an air inlet, a high voltage source having a high voltage alternating current power supply, an electrode electrically connected to the high voltage alternating current power supply and configured to alternately generate positive polarity ions and negative polarity ions, an air outlet and an air mover for causing air to flow into the bipolar air ionizer through the air inlet, around the electrode and out of the bipolar air ionizer through the air outlet, wherein the improvement comprises:

a foraminous filter comprising an electrically conductive material, the filter being electrically coupled to ground through at least one of a ~~voltage source~~ resistor and ~~ground~~ a capacitor,

the filter being positioned over at least one of the air inlet, the air outlet and the electrode, such that air flowing into the air inlet, air flowing out of the air outlet or air flowing past the electrode flows through the filter.

26. (Currently amended) A method of removing ions from air flowing into a bipolar air ionizer having an air inlet, a high voltage source having a high voltage alternating current power supply, an electrode electrically connected to the high voltage alternating current power supply and configured to alternately generate positive polarity ions and negative polarity ions, an air outlet and an air mover for causing air to flow into the bipolar air ionizer through the air inlet, around the electrode and out of the bipolar air ionizer through the air outlet, the method comprising ~~the steps of:~~

placing a foraminous filter comprising an electrically conductive material over the air inlet; and

coupling the filter to ground through at least one of a ~~voltage source~~ resistor and ground a capacitor.

27. (Currently amended) A method of removing ions from air flowing into a bipolar air ionizer having an air inlet, a high voltage source having a high voltage alternating current power supply, an electrode electrically connected to the high voltage alternating current power supply and configured to alternately generate positive polarity ions and negative polarity ions, an air outlet and an air mover for causing air to flow into the bipolar air ionizer through the air inlet, around the electrode and out of the bipolar air ionizer through the air outlet, the method comprising ~~the steps of:~~

placing a foraminous filter comprising an electrically conductive material around the electrode; and

coupling the filter to ground through at least one of a ~~voltage source~~ resistor and ground a capacitor.

28. (Currently amended) In a bipolar air ionizer apparatus comprising an air inlet, a high voltage source having a high voltage alternating current power supply, an electrode electrically connected to the high voltage alternating current power supply and configured to alternately generate positive polarity ions and negative polarity ions, an air outlet and an air mover for causing air to flow into the bipolar air ionizer through the air inlet, around the electrode and out of the bipolar air ionizer through the air outlet, wherein the improvement comprises:

a foraminous filter comprising an electrically conductive material, the filter being ~~electrically~~ coupled to ground through at least one of a voltage source resistor and ground, a capacitor,

the filter being positioned on an interior surface of the bipolar air ionizer apparatus, such that at least a portion of the air flowing past the electrodes engages the filter.

29. (Currently amended) A method of removing unwanted ions from air flowing out of a bipolar air ionizer, the bipolar air ionizer having an air inlet, a high voltage source having a high voltage alternating current power supply, an electrode electrically connected to the high voltage alternating current power supply and configured to alternately generate positive polarity ions and negative polarity ions, an air outlet and an air mover for causing air to flow into the bipolar air ionizer through the air inlet, around the electrode and out of the bipolar air ionizer through the air outlet, the method comprising ~~the steps of:~~

placing a foraminous filter comprising an electrically conductive material over an interior surface of the bipolar air ionizer apparatus proximate to the electrode; and

coupling the filter to ground through at least one of a voltage source resistor and ground a capacitor.

30. (New) The bipolar air ionizer apparatus of claim 25, wherein the filter has a bias voltage applied thereto.

31. (New) The method of claim 26, further comprising:

applying a bias voltage to the filter.

32. (New) The method of claim 27, further comprising:

applying a bias voltage to the filter.

33. (New) The bipolar air ionizer apparatus of claim 28, wherein the filter has a bias voltage applied thereto.

34. (New) The method of claim 29, further comprising:
applying a bias voltage to the filter.